

Amendments to the Claims:

Please cancel claims 6 and 7 without prejudice.

Please amend claims 1, 3, 8, 9 and 12 as indicated below.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A scanning microscope comprising: an acoustooptical component that splits out illuminating light for illumination of a sample from ~~the~~ output light of at least one light source, and conveys detected light proceeding from the sample to a detector, a control circuit for controlling the power of the illuminating light and at least one monitoring detector which is arranged in ~~the~~ a beam path of the output light from which the illuminating light has been split out and which is ~~the~~ a measuring element of the control circuit.

Claim 2 (original): The scanning microscope as defined in Claim 1, wherein the acoustooptical component spreads off the output light in spatially spectral fashion.

Claim 3 (currently amended): The scanning microscope as defined in Claim 2, wherein one monitoring detector is provided for each of ~~the~~ different wavelength regions or different wavelengths of the spatially spectrally spread-off output light.

Claim 4 (original): The scanning microscope as defined in Claim 1, further comprising a processing module that controls the acoustooptical component in open- or closed-loop fashion as a function of at least one light power level measured with the monitoring detector.

Claim 5 (original): The scanning microscope as defined in Claim 1, wherein the acoustooptical component is an acoustooptical tunable filter (AOTF) or an acoustooptical modulator (AOM).

Claim 6 (canceled)

Claim 7 (canceled)

Claim 8 (currently amended): A scanning microscope comprising: an acoustooptical component that splits out output light of at least one light source into at least illuminating light for illumination of a sample and monitoring light from the output light of at least one light source, a control circuit for controlling the power of the illuminating light, at least one monitoring detector which is arranged in ~~the~~ a beam path of the ~~output light from which the illuminating light has been split out~~ monitoring light and which is ~~the~~ a measuring element of the control circuit, and a processing module that controls the acoustooptical component in ~~open-~~ open-loop or closed-loop fashion as a function of at least one light power level measured with the monitoring detector.

Claim 9 (currently amended): A scanning microscope comprising: an acoustooptical component that splits out illuminating light for illumination of a sample from ~~the~~ output light of at least one light source, and conveys detected light proceeding from the sample to a detector, a control circuit for controlling the power of the illuminating light, at least one monitoring detector which is arranged in the beam path of the output light from which the illuminating light has been split out and which is ~~the~~ a measuring element of the control circuit, and a processing module that, as a function of at least one light power level measured with the monitoring detector, controls in open- or closed-loop fashion a controllable optical element arranged between the light source and the acoustooptical component in the beam path of the output light of the light source.

Claim 10 (previously presented): The scanning microscope as defined in Claim 9, wherein the controllable optical element is a polarization rotator and/or an LCD element

and/or an acoustooptical tunable filter (AOTF) and/or an acoustooptical modulator (AOM) and/or an electrooptical modulator (EOM).

Claim 11 (previously presented): The scanning microscope as defined in Claim 9, wherein the acoustooptical component spreads off the output light in spatially spectral fashion.

Claim 12 (currently amended): The scanning microscope as defined in Claim 11, wherein one monitoring detector is provided for each of the different wavelength regions or different wavelengths of the spatially spectrally spread-off output light.

Claim 13 (previously presented): The scanning microscope as defined in Claim 9, further comprising a processing module that controls the acoustooptical component in open- or closed-loop fashion as a function of at least one light power level measured with the monitoring detector.

Claim 14 (previously presented): The scanning microscope as defined in Claim 9, wherein the acoustooptical component is an acoustooptical tunable filter (AOTF) or an acoustooptical modulator (AOM).